AMENDMENTS TO THE CLAIMS

1. (Currently amended) A reactor for chemical processes involving catalytic reactions of gasses at high temperatures, comprising:

a reactor shell comprising an inlet and an outlet, the reactor shell being suitable for operation at elevated pressures; and

a ~~gas impermeable~~ metallic basket suitable for operation at elevated temperatures inside the reactor shell, the metallic basket having sidewalls insulated by ~~surrounded by~~ a layer of insulation material which is provided between the sidewalls of the metallic basket and an inner wall of the reactor shell, ~~the insulation material being surrounded by a reactor shell suitable for operation at elevated pressures,~~

wherein the basket comprises an inlet channel and ~~a metallic wall surrounding~~ a fixed catalyst bed, and

wherein the inlet channel coincides with the inlet of the reactor shell ~~is connected to the reactor shell forming a gas leak tight transfer for a feed gas~~.

2. (Currently amended) ~~Reactor~~ The reactor according to claim 1, wherein an inner surface of the metallic basket is coated with a ceramic material ~~such as alumina or zirconia~~.

3. (Currently amended) ~~Reactor~~ The reactor according to claim 1, wherein an electric heater is installed on the outer surface of the metallic basket ~~wall around the inlet layer of the catalyst bed~~.

4. (Currently amended) ~~Reactor~~ The reactor according to claim 3, wherein an inner surface of the basket at the position of the heater is coated with a catalytic material active in partial oxidation.

5. (Currently amended) ~~Reactor~~ The reactor according to claim 4, wherein the catalytic material comprises platinum, rhodium, ruthenium or nickel.

6. (Currently amended) ~~Reactor~~ The reactor according to claim 1, wherein catalyst in the catalyst bed comprises particles or a monolith.

7. (Currently amended) A method ~~of using a reactor according to claim 1~~ for catalytic partial oxidation of hydrocarbons, the method comprising the steps of:

providing a reactor having a reactor shell comprising an inlet and an outlet, the reactor shell being suitable for operation at elevated pressures; and a metallic basket suitable for operation at elevated temperatures inside the reactor shell, the metallic basket having sidewalls insulated by a layer of insulation material which is provided between the sidewalls of the metallic basket and an inner wall of the reactor shell, wherein the basket comprises an inlet channel and a fixed catalyst bed, and wherein the inlet channel coincides with the inlet of the reactor shell; and

conducting a catalytic conversion of hydrocarbons reaction.

8. (Currently amended) ~~A method of using a reactor~~ The method according to claim [[1]] 7, wherein the temperature of the reacting gasses is in the range of 500°C to 1300°C.

9. (Currently amended) ~~A method of using a reactor as recited in~~ The method according to claim 8, wherein the temperature of the reacting gasses is between 900°C and 1200°C.

10. (New) The reactor according to claim 1, wherein the bottom of the metallic basket is a grid that allows reacted gas to pass from the fixed catalyst bed to the outlet of the reactor shell.